

SOUTHWEST ALASKA SEA OTTER RECOVERY TEAM

Meeting Minutes
for
15-17 April 2008
at the
North Pacific Research Board Conference Room
1007 West 3rd Avenue, Suite 100
Anchorage, Alaska 99501

Recovery Team Members in Attendance

David Benton, Jim Bodkin, Kathy Burek, Douglas Burn, Jim Curland, Jim Estes, Lloyd Lowry, Ken Pitcher, Kathy Ralls, Tim Tinker.

Other Meeting Attendees

Sonja Jahrsdoerfer, Dana Jenski, Doug Vincent-Lang, Rosa Meehan, Robert Small, Bill Wilson, Kristine Sowl (via teleconference).

Day One

The meeting [agenda](#) was reviewed and adopted without revision.

Update on SWAK SO management actions

Douglas Burn began by reminding the team that the Service has a court-ordered deadline to have a critical habitat proposal to the Federal Register by November 30, 2008. The proposal will be followed by a public comment period, which is typically 60 days. Once the Service knows the areas that will be proposed, they will also do an economic analysis of the impacts of designating critical habitat. The Service has been working on the proposal since December 2007, and has a draft ready to begin the review process.

The rationale behind the Service's approach to critical habitat designation is that features that provide cover and shelter from marine predators may be essential to the conservation of the DPS. During skiff surveys conducted in 2007, 90% of all otters observed were estimated to be within 100m of shore. Additional criteria under consideration are based on water depths that are either: 1) too shallow for marine predators to forage (less than 5m); and/or 2) where kelp forests occur (less than 20m). For all practical purposes, the 20m depth contour encompasses the 100m shoreline buffer, and completely encompasses the 5m depth contour.

Tim Tinker asked if there was any consideration of proximity to "refuge" habitats, such as Shagak Bay on Adak Island. Burn responded that knowledge of "refuge" habitats is limited to only a few areas, so this criteria would be difficult to apply throughout the DPS.

Burn also stated that due to the unique habitat characteristics within the Bristol Bay management unit, the 20m depth contour does not adequately identify these essential features (with the exception of Amak Island). Instead, areas that are known to support large numbers of sea otters

(Izembek Lagoon, Port Moller, and Herendeen Bay are being considered for inclusion as subunits of critical habitat.

Overall, the Service may propose approximately 15,000 km² of critical habitat. Much of this area is already designated as critical habitat for Steller sea lions. Although Section 7 consultation is already required for these areas, the features differ between the two species, so the outcome of jeopardy and adverse modification standards could differ.

Kathy Ralls asked if the area likely to be proposed has enough food to support a recovered population of sea otters. Burn responded that at densities from 1-2 otters per km², these areas would support between 15,000-30,000 otters.

Jim Estes stated his belief that although these criteria identify areas that are necessary, he was not convinced that they are sufficient. Burn asked what would be the essential physical and biological features that occur beyond the proposed areas, and what criteria would be used to define them. Robert Small asked how the term “conservation” was being defined in the context of critical habitat. Burn responded that both “conservation” and “recovery,” mean the DPS no longer requires the protections of the ESA. Based on that definition, Estes re-stated that he did not think the proposed area was sufficient. Ralls asked if the area should be sufficient for recovery, or just enough to prevent extinction. There was additional discussion on this point without resolution. Estes stated that the statutory guidelines for critical habitat in this case could result in poor biological decisions.

Dave Benton asked how critical habitat relates to the jeopardy standard. Sonja Jahrsdoerfer responded that they are separate, but related, analyses.

Jim Curland asked if the Center for Biological Diversity (CBD) had given any indication to what they thought the essential features are, and if not, could they make suggestions during the comment period. Burn stated that he believed the CBD lawsuit was procedural, without making specific recommendations.

There was more discussion, which Lloyd Lowry finished by clarifying that critical habitat provides the agency with an opportunity to pick some special places and provide them with extra protection, and that it really means nothing if they designate every bit of habitat that an otter may use. Burn reminded the team that even areas that are not designated as critical habitat will undergo a jeopardy analysis during Section 7 consultations.

Tinker stated that these criteria might be the best that can be done, and that the Service will likely get comments that the areas designated are both too much and too little. Estes asked what was the harm of proposing a broader area, given that most of it is remote. Lowry noted that in the case of manatees in Florida, the Service proposed all navigable waterways, which proved of little value when applying conservation actions.

Benton noted that critical habitat is going to be of interest to communities in the Aleutians. He also brought up the issues of seafood processor discharge, the Aleutian Islands risk assessment study, and entanglement in marine debris.

Jim Bodkin agreed with Estes that the statutory definition of critical habitat is not particularly applicable to this DPS, and asked what the consequences might be of “getting this wrong.” Ralls responded that in the case of California condors, the essential features are nest sites. That is not to say that other threats that occur outside of these areas might not impact the population, but that those nest sites required additional protections.

Lowry stated that the team could write a letter to the Regional Director to offer recommendations for critical habitat designation, but the team has not decided to do this. Estes suggested that the team wait until the Service has proposed critical habitat, and then respond to that.

Moving on to other management actions, Burn reported that the plans for the Akutan airport and hovercraft seem to have been put on hold. The Service also had a Section 7 consultation with the Alaska Maritime National Wildlife Refuge for a rat eradication project at Rat Island in the western Aleutians. He also talked about the proposed oil and gas lease sale in the North Aleutian Basin, and said that there would be Section 7 consultations on that action

Plans for 2008 SWAK SO research

Burn reported that the Service had no plans for surveys within the DPS in 2008, but that they would be funding the U.S. Geological Survey (USGS) to survey Kamishak Bay. He also reported that there were still 42 radio transmitters on the air from otters captured in Kachemak Bay in summer 2007. Of the two mortalities in that sample so far, one was a boat strike (carcass recovered and necropsied) and the other a subsistence-harvested animal (tags were turned in, but not the carcass). The Service’s highest priority project is to continue monitor these radios. In addition, they intend to do a small foraging observation study of these tagged otters, continue stranding network operations, and also issue a contract with the Aleut Marine Mammal Commission to conduct aerial surveys in the Shumagin and Pavlof Islands.

Lowry asked if there were any areas that the Service would like to survey in 2008, but did not have the funds to do so. Burn noted that there is a need to redesign some of the survey areas, and that perhaps Kodiak would be next in line for a survey. Bodkin thought Kodiak would be a good candidate for a survey, considering the uncertainty regarding the sea otter population there. There was a brief discussion about the Kodiak population trend, especially the decision to not use the 1989 helicopter survey result in the most recent analysis.

Tinker noted that it would be good to have additional skiff survey data from Unalaska, as there is a shortage of trend sites except in the western Aleutians. Burn noted that although that was a possibility, it was not going to occur in 2008 for funding and logistical reasons.

Bodkin informed the team that in 2008, the USGS Alaska Science Center would be conducting a joint study of kelp forest and sea otter ecology within the DPS with Jim Estes. Although the work plan has been refined somewhat, this is basically the same research that was described to the team at the October 2007 meeting. In addition, USGS will also continue their project in Katmai National Park that includes aerial surveys, diet information, and carcass collection for age analysis.

USGS will also have 2 people on Adak during the summer of 2008 studying sea otter distribution, diet, and activity budgets. They will also be conducting skiff surveys and looking for sea otter carcasses.

Estes reported that the Alaska SeaLife Center (ASLC) no longer has funding for their sea otter program. In 2008 they plan to return to Bering Island in Russia to recapture animals to recover time-depth recorders. This study is currently only partially funded, and they are working on finding money to make up the shortfall. The ASLC also requested a no-cost extension to their existing grant with the Service. Their final report is now due June 30, 2009.

Estes also added that researchers from Maine and Canada would be collecting specimens of coralline algae in the Aleutians this summer as part of a study that he reported on at the October 2007 meeting.

Threats Assessment

The team revisited the threats assessment tables from the October 2007 meeting. Since that time, there had been some e-mail discussion about the columns and categories in the tables. Specifically, the “Likelihood” column was changed to mean “the likelihood that the threat would occur” rather than “likelihood that the threat would impede recovery.”

There was considerable discussion about the meaning of the “Severity” column, which was eventually changed to “Potential Impact” following the Steller sea lion recovery plan. Estes suggested that the tables needed a summary column that identifies the overall level of threat. Also following the Steller sea lion plan, the team agreed to add this column, which was titled “Importance to Recovery.” The team also elected to delete the “Immediacy” column.

Day Two

Burn distributed copies of the revised threats assessment tables to the team, which led to additional discussion. Lowry instructed the team to focus on the importance to recovery of each threat.

There was not general agreement about the threat “Food Limitation.” Some members interpreted this to mean external threats to sea otter foods, whereas others also included the potential effects of sea otter foraging. At this point, the team elected to change this threat to “Prey Base” which was to be interpreted as external threats.

The team discussed and rejected a suggestion to combine the “Potential Impact” and “Geographic Scope” columns.

After much discussion the western Aleutian Islands table was revised according to the agreed-upon columns and rankings. Successive tables were revised by identifying which threats differed from the western Aleutians table.

Recovery strategy and goals

The team reviewed nine bulleted points in the recovery strategy that need additional explanatory text drafted. There was agreement that the strategy was essentially complete with only some slight revision needed. Lowry agreed to draft text to explain the bulleted points.

Delisting and uplisting criteria

Estes presented proposed ecosystem-related delisting criteria based on the phase shift between urchin-dominated or kelp-dominated ecosystem states. One possible advantage of ecosystem-based criteria is that it may be easier to use measures of kelp and urchin densities to determine whether sea otters are at a “healthy” population level, than it would be to monitor the sea otter population itself. Most of the data used in the analysis are from the western Aleutian management unit, with some from the eastern Aleutian unit. Burek asked about what would happen if some other factor (besides otter predation) were to wipe out urchin populations. Estes replied that there was no information about any type of disease that might occur, and that in his opinion that was unlikely. He asked that team members read the document he provided and submit questions and or comments to him directly.

There was some question about the applicability of the potential ecosystem-based criteria to other areas. Estes noted that there are physiographic and oceanographic differences between the Aleutian Islands and other areas that affect settlement patterns of urchin larvae, and that it would be unwise to extrapolate an Aleutians-based ecosystem criterion to other areas.

Benton noted that we should think about conditions over the next 5-10 years, and what things other than otters that could lead to changes in urchin and kelp abundance. He advised that there should be consideration on how to address the possibility of a false signal, and wanted to make sure that this delisting criteria does in fact relate back to recovery of the sea otter population. Benton was also concerned about requiring an ecosystem-based criteria as well as demographic ones when considering delisting.

The team discussed ways to word the delisting criteria to indicate that once the population has recovered, there would be clear signs of ecosystem health. There was also some discussion about how the delisting criteria should be distributed, especially within the western Aleutian unit, so that the recovered population is distributed broadly.

The team next reviewed the draft threats-based criteria developed by Ralls and Burn during the Tuesday morning working session. The text was revised by the entire group.

Tinker presented a progress report on the population viability analysis (PVA) model he has been developing. There was discussion of quasi-extinction thresholds at individual islands, island groups, and for the entire western Aleutians unit. There was not any general agreement for the value to use probability of extinction within some foreseeable future, and the team decided to investigate what other examples of these criteria may exist for other mammalian and avian species.

Day Three

Burn provided the team with updated Threats Assessment tables, including a summary table that combines the overall threat values for each management unit. There was general agreement that the summary table and discussion of rationale for the conclusions belong in the text of the plan, and the individual management unit tables should be an appendix. Pitcher agreed to draft explanatory text to accompany the tables.

Tinker presented the results of some modeling simulations that he had run overnight that indicated that 20 years may be too short a timeframe to use as the “foreseeable future”, as it is less than 3 sea otter generations. In the simulations, major changes began to appear somewhere in the 20-35 year time frame (3-5 generations).

Ralls agreed to review the state of the art of PVA-based criteria in other endangered species recovery plans. Burn agreed to contact Debby Crouse, Service Recovery Liaison for Region 7, and ask her for examples of PVA models and criteria used in other plans.

Tinker agreed to run various modeling scenarios over the next few months with 100-year time frames, as the data can be truncated to shorter periods if necessary. He also plans to review the PVA model parameters with Bodkin, Estes, and Ralls before proceeding. Tinker plans to write up a summary of the modeling procedures for review by this working group.

Ralls advised that the recovery plan should include an explanation why it does not use a genetic approach to calculating quasi-extinction levels, as they are generally much higher than the values the team had been discussing for use in the PVA model. The team agreed that there should be some discussion of genetics in the plan.

Recovery Action Outline and Implementation Schedule

The team reviewed the recovery action outline that they had revised at the previous meeting. Estes recommended deleting the item on ecosystem monitoring, and including it as a subheading under population monitoring instead.

Tinker suggested that there should be a review of the background and threats sections to reduce repetition. This brought up the subject about having an outside review/edit of the draft plan for overall consistency, which had general support from the team.

Burn committed to formatting the recovery action outline into a draft implementation schedule. It was decided that Burn, Bodkin, and Estes would make a first cut at filling in the schedule which would then be distributed to all team members.

The team finished the meeting by discussion what actions need to be completed in the draft plan and the need for future meetings. The proposed sequence of events is as follows.

- Continue drafting sections and compiling the plan (May-September 2008).
- Distribute compiled draft plan to team members at least one month prior to the next meeting.

- Recovery Team meeting to review and agree upon draft plan (November 2008).
- Modify draft plan as needed to reflect team comments and concerns.
- Submit draft plan for review by contracted independent expert.
- Revise plan as needed based on independent review.
- Draft plan submitted to team members for final approval.
- Team's final plan submitted to the Service (April 2009).

Action items

- All team members should review and revise the background and threats sections of the plan that they drafted and submit revisions to Lowry.
- Lowry will draft text to for the Recovery Strategy section of the plan.
- Pitcher will draft text to explain tables in the Threats Assessment section of the plan.
- Ralls and Burn will investigate PVAs, and values for probability of extinction and foreseeable future, used in existing ESA recovery plans.
- Estes will revise and finalize draft ecosystem-based recovery criteria.
- Tinker, Estes, Bodkin, and Ralls will meet to review parameter values being used in the current SWAKSORT PVA model.
- Tinker will continue to run scenarios through the PVA model.
- Burn will use the recovery action outline to make a draft implementation schedule, and he, Bodkin, and Estes will fill in the template with preliminary values.
- Burn will investigate contracting for an experienced scientist/editor to review the team's draft plan before it is submitted to the Service.